

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application. Please amend the claims, as follows:

1-7. (Canceled)

8. (Currently Amended) A method for dimensioning a number of radio carriers in a cell of a mobile telecommunications network, the cell being suitable for managing data calls associated to ~~with~~ data terminals having different terminal capabilities, ~~the cell comprising a plurality of status, the method comprising:~~

categorizing the data calls as a plurality of data traffic streams, whereby each data traffic stream is associated with a different data terminal capability;

identifying a set of possible cell statuses associated with the cell, each possible cell status corresponding to a different set of values  $\{m_1, m_2, \dots, m_N\}$  where  $m_i$  represents a number of data terminals associated with the  $i^{\text{th}}$  data traffic stream and  $N$  represents the total number of data traffic streams;

determining, for each data traffic stream, an upper limit for ~~limiting~~ the number of data terminals that can be associated with the data traffic stream; said plurality of status associated to said cell accessed by a plurality of different traffic streams associated to said data terminals;

limiting the number of possible cell statuses based on the upper limits respectively determined for the data traffic streams;

determining, for each of the limited number of possible cell statuses, at least one sequence of data terminals used to access the cell; ~~medium death frequencies of a single cell status by considering determined sequences of users accessing the cell and having a different repartition of frequency of death;~~

determining, for each of the limited number of possible cell statuses, one or more data-call death frequencies corresponding to frequencies with which data calls are terminated in the data traffic streams, the one or more data-call death frequencies for a possible cell status being determined based on the at least one sequence of data terminals used to access the cell in that possible cell status;

determining, for each of the limited number of possible cell statuses, one or more data-call arrival frequencies corresponding to frequencies with which data calls are initiated in the data traffic streams;

determining a global set of cell status probabilities of said for the cell on the basis of the determined data-call ~~data call~~ arrival frequencies and of the medium data-call death frequencies of data calls; and

dimensioning said the cell on the basis of said the determined global set of cell status probabilities.

9. (Currently Amended) The method according to claim 8, further comprising:  
~~wherein the step of limiting the number of said plurality of status comprises the step of~~  
separately analysing-analyzing each data traffic stream of said the plurality of data traffic streams to determine the upper limit for the number of offered by said data terminals that can be associated with the data traffic stream.

10. (Currently Amended) The method according to claim 8, wherein ~~each of said determined sequences~~the at least one determined sequence of data terminals is ~~has~~ associated with a set of sequences having the same ~~repartition of the~~ data-call death frequency ~~of the death~~.

11. (Previously Presented) The method according to the claim 8, wherein the network is a TDMA or TDMA/FDMA type network.

12. (Previously Presented) The method according to claim 8, wherein the network is a GPRS type network.

13. (Currently Amended) A cell of a mobile telecommunications network suitable for managing data calls associated with ~~of different type~~ data terminals having different terminal capabilities, a number of radio carriers in the cell capable of being dimensioned by performing a method comprising:

categorizing the data calls as a plurality of data traffic streams, whereby each data traffic stream is associated with a different data terminal capability;

identifying a set of possible cell statuses associated with the cell, each possible cell status corresponding to a different set of values  $\{m_1, m_2, \dots, m_N\}$  where  $m_i$  represents a number of data terminals associated with the  $i^{\text{th}}$  data traffic stream and  $N$  represents the total number of data traffic streams;

determining, for each possible cell status, one or more data-call death  
frequencies corresponding to frequencies with which data calls are terminated in the  
data traffic streams;

determining, for each possible cell status, one or more data-call arrival  
frequencies corresponding to frequencies with which data calls are initiated in the data  
traffic streams;

determining a set of cell status probabilities for the cell on the basis of the  
determined data-call arrival frequencies and data-call death frequencies; and  
dimensioning the cell on the basis of the determined set of cell status  
probabilities.

~~, dimensioned by the method of any one of claims 8 to 12.~~

14. (Currently Amended) A computer-readable medium storing instructions ~~computer~~  
~~program-product~~ directly loadable in the an internal memory of at least a computer and  
capable of being executed by at least the computer, the instructions ~~and including~~  
~~software code portions capable of performing the method of any one of claims 8 to 12,~~  
~~when said product is capable of being run on at least a computer~~ a method for  
dimensioning a number of radio carriers in a cell of a mobile telecommunications  
network, the cell being suitable for managing data calls associated with data terminals  
having different terminal capabilities, the method comprising:

categorizing the data calls as a plurality of data traffic streams, whereby each  
data traffic stream is associated with a different data terminal capability;

identifying a set of possible cell statuses associated with the cell, each possible cell status corresponding to a different set of values  $\{m_1, m_2, \dots, m_N\}$  where  $m_i$  represents a number of data terminals associated with the  $i^{\text{th}}$  data traffic stream and  $N$  represents the total number of data traffic streams;

determining, for each possible cell status, one or more data-call death frequencies corresponding to frequencies with which data calls are terminated in the data traffic streams;

determining, for each possible cell status, one or more data-call arrival frequencies corresponding to frequencies with which data calls are initiated in the data traffic streams;

determining a set of cell status probabilities for the cell on the basis of the determined data-call arrival frequencies and data-call death frequencies; and  
dimensioning the cell on the basis of the determined set of cell status probabilities.

Please add the following new claims 15-17:

15. (New) The method according to claim 8, wherein each determined upper limit corresponds to a maximum number of data terminals associated with a data traffic stream.

16. (New) The method according to claim 15, further comprising:

determining the maximum number of data terminals associated with a data traffic stream based on a probability of having the maximum number of data terminals in the data traffic stream.

17. (New) A method for dimensioning a number of radio carriers in a cell of a mobile telecommunications network, the cell being suitable for managing data calls associated with data terminals having different terminal capabilities, the method comprising:

categorizing the data calls as a plurality of data traffic streams, whereby each data traffic stream is associated with a different data terminal capability;

identifying a set of possible cell statuses associated with the cell, each possible cell status corresponding to a different set of values  $\{m_1, m_2, \dots, m_N\}$  where  $m_i$  represents a number of data terminals associated with the  $i^{\text{th}}$  data traffic stream and  $N$  represents the total number of data traffic streams;

determining, for each possible cell status, one or more data-call death frequencies corresponding to frequencies with which data calls are terminated in the data traffic streams;

determining, for each possible cell status, one or more data-call arrival frequencies corresponding to frequencies with which data calls are initiated in the data traffic streams;

determining a set of cell status probabilities for the cell on the basis of the determined data-call arrival frequencies and data-call death frequencies; and

dimensioning the cell on the basis of the determined set of cell status probabilities.